

CHIP FOR LARGE-SCALE USE OF INDUSTRIAL GENOMICS IN HEALTH AND AGRICULTURE AND METHOD OF MAKING SAME

5 This application is based on and claims priority from provisional application Serial No. 60/247,325 filed November 10, 2000.

TECHNICAL FIELD

10 The present invention is directed to a product in the form of a chip for functional genomics for DNA testing and which holds or carries DNA samples and the method of making same. A preferred chip would have a hydrophobic field and hydrophilic pads within the field to hold the DNA.

BACKGROUND OF THE INVENTION

15 Attempts to manufacture a chip of this type for functional genomics by plasma dispositions and not requiring silation of the fields could produce the hydrophobic field but proved to be unstable, non-repeatable and resulted in a low yielding and poor quality of product.

20 With the present invention, it has been possible to produce a hydrophobic fluorene polymer coated wafer with exceptional characteristics. The process of the present invention eradicates the instability and variability of organic pads, eliminates the need to alter the surface of previously produced chips via vapor silation methodology prior to depositing matrix and analyte and increases the hydrophobicity delta between field areas and silicon pad analysis areas.

DESCRIPTION OF THE DRAWINGS

Fig. 1 is a flow chart showing the steps of one process of making a chip of the present invention.

25 Fig. 2 shows the parameters of the hydrophobic coat process.

Fig. 3 shows the parameters of etching the pad areas to the oxide wafer.